

2018 Annual Summary Report
Operations and Maintenance Plan
Oeser Superfund Site
Bellingham, Washington



Prepared by Christopher M. Secrist,
The Oeser Company
February 15, 2019

Contents

1.0	Introductions and Backgrounds.....	1-1
1.1	Purpose	1-2
1.2	Background.....	1-2
2.0	Compliance Groundwater monitoring.....	2-1
3.0	Cap Inspection and Maintenance.....	3-1
	2018 Cap and Stormwater Drainage System Inspection Log.....	3-2
4.0	Stormwater Drainage System Inspection and Maintenance.....	4-1
5.0	Soil Management Plan.....	5-1
6.0	Health and Safety.....	6-1
7.0	Documentation and Reporting.....	7-1
8.0	Rolls and Responsibilities.....	8-1

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 1.0

Introduction & Background

This section outlines the purpose and goals for operations and maintenance (O&M)

2018 Summary Report;

The O&M of the Remedial Action at The Oeser Company was conducted in compliance with the O&M Plan during 2018.

1.0 Introduction

This plan outlines Operation and Maintenance (O&M) requirements for the Oeser Company Superfund Site. This document provides a reference for routine inspection, maintenance, and monitoring tasks including cap inspection and maintenance, stormwater system maintenance, soil handling procedures, notification requirements, and groundwater monitoring procedures.

1.1 Purpose

The objectives of the remedial actions at the Oeser Company Superfund Site (Oeser site) include:

- 1) preventing contact with contaminated soil, shallow groundwater, and deep groundwater; and
- 2) reducing migration of contaminants in soil and shallow groundwater to deep groundwater such that off-property concentrations in the deep groundwater are below cleanup levels. With the completion of capping and installation of the stormwater management system, these objectives have been achieved. Inspection, maintenance, and monitoring activities will be completed to ensure that the caps and stormwater system continue functioning, that any significant non-aqueous phase liquid (NAPL) identified in the shallow groundwater is removed, and that groundwater concentrations above cleanup levels are limited to the Oeser property.

1.2 Background

The Oeser Company (Oeser) is located on a 26-acre parcel of land in Whatcom County, Washington. Oeser is an active wood treating facility that historically used treating solutions of creosote and pentachlorophenol (PCP) to preserve utility poles and pilings. The facility ceased using creosote in the early 1980s.

The Environmental Protection Agency (EPA) placed Oeser on the National Priorities List of Superfund sites because wood treating chemicals had been released to the environment as a result of historic practices. EPA implemented a Removal Action and conducted a *Remedial Investigation and Feasibility Study* (RI/FS) at the site, finalizing both the RI and FS reports in 2002 (EPA 2002a and 2002b). Based on the RI/FS, EPA issued a Record of Decision (ROD) in September 2003 (EPA 2003) which presented the selected remedy, including the following elements:

- Excavation or capping of soils containing chemicals of concern (COCs) above health-based cleanup levels
- Institutional controls on the Oeser site restricting groundwater use and certain non-industrial land uses
- Monitoring groundwater and passive removal of NAPL where detected on the Oeser site
- O&M of the remedial action.

In November 2005, Oeser entered into a Consent Decree with EPA to implement the remedial activities described in the ROD and specified in the Statement of Work (SOW; EPA 2005). Oeser prepared a *Remedial Design Work Plan* (RDWP; RETEC 2006) for the selected remedy which provides the overall approach for completing the remedial design and remedial action (RD/RA) as described in the ROD. In the RDWP, the design and implementation of the remedy were separated into the following two areas:

- **Area 1** – Excavation of or capping over contaminated soils located in the North and South Pole Yards

Area 2— Excavation of or capping over contaminated soils in the Primary Wood Treating Area (Treatment Area), which includes the North, West, and East Treatment areas, in the Treated Pole Area, and in the Wood Storage Area (Figure 1).

As part of the Area 1 remedial action, a gravel cap was constructed to provide a stable, permanent barrier. The cap prevents direct contact with the underlying soil and is capable of handling heavy equipment traffic. Approximately 90,500 square feet of geo-textile fabric were placed over the prepared subgrade. Approximately 3,456 tons of gravel were placed over the geo-textile fabric. The gravel cap was graded to a minimum thickness of 6 inches in all areas. Oeser notified EPA that construction of the Area 1 cap was complete on December 8, 2006. EPA conducted a Pre-Final Inspection of the Area 1 Remedial Action on March 9, 2007 and provided their feedback from the inspection in a technical memorandum on July 19, 2007 (Ecology and Environment 2007). EPA performed the final inspection on September 24, 2008. A *Draft Construction Completion Report* was submitted to EPA in May 2008 (ENSR 2008a).

The Area 2 remedial action was completed in two phases and involved gravel cap maintenance, construction of an asphalt cap and of a concrete cap, and stormwater improvements at the Oeser site. Gravel cap maintenance was performed in the Wood Storage Area by placing clean import gravel over areas with exposed geotextile. The gravel cap was graded to a minimum of 6 inches in the maintenance areas. The asphalt cap was constructed over an area of approximately 7.7 acres and is comprised of a minimum 6-inch base course layer overlain by a minimum 4-inch Class E asphalt layer. A minimum 2-inch Class B asphalt wearing course layer was placed at the surface. The concrete cap was constructed in the former Stiff Leg Area (Figure 2) over an area less than a quarter acre. The concrete cap measured approximately 4 to 8 inches thick and was installed over a minimum 4-inch thick base course layer. All the new caps (gravel, asphalt, and concrete) constructed at the Oeser site included a geotextile fabric layer as a delineator between the native soil and the clean cap material. Stormwater improvements completed at the Oeser site include construction of a network of storm drains, catch basins, manholes, two stormwater retention ponds, and a bioswale. The northeastern stormwater retention pond and the bioswale are lined with 30-mil linear low-density polyethylene (LLDPE) geomembrane liner. A *Preliminary Construction Completion Report for Area 2 Phases 1 and 2* was submitted to EPA in June 2009 (AECOM 2009).

On August 4, 2010, Oeser entered into an Administrative Settlement Agreement and Order on Consent with EPA for cleanup activities in Little Squalicum Creek (LSC). As part of LSC cleanup activities, contaminated material was excavated from LSC and was consolidated in a repository constructed at the Oeser site. This repository is located on the western area of the Oeser property (Figure 2) and consists of four waste cells or units with a total capacity of approximately 14,600 cubic yards. As a first step in the construction of the repository, the cells were filled with contaminated soil hauled from LSC. The contaminated soil was compacted and the footprint of the cell was covered with a geotextile layer. A cap was then constructed over this area. The cap was constructed by placing a minimum 6-inch layer of crushed asphalt and/or clean import crushed rock with a minimum slope of 1 percent to ensure proper drainage. Cell 1 was filled with material consolidated from the Oeser site and capped. Cell 2 was completely filled and capped. Cell 3 was completely filled and the stable portions of the cell were capped. The western portion of Cell 3 was initially too soft to finish capping and the cap will be constructed when conditions permit. Cell 4 was filled and capped. Capacity remains in Cell 4 for future consolidation and capping of excavated on-site soils. Stormwater control, monitoring, and maintenance of the repository is being performed by Oeser. Runoff from the repository is managed in accordance with the Washington State Department of Ecology NPDES permit.

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 2.0

Compliance Groundwater Monitoring

This section outlines;

- Well monitoring frequency.
2 times per year, first 3 years.
 - When reduced well monitoring may be requested.
After 3 years (2016)
 - Reporting of well monitoring data.
 - Actions to be taken if groundwater concentrations exceed cleanup levels.
-

2018 Summary Report;

Per Addendum 1 of the O & M Plan, the next compliance ground water monitoring will take place in May and November 2020. Semi-annual monitoring will take place every 5 years thereafter, one year in advance of scheduled Five-Year Reviews.

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 3.0

Cap Inspection & Maintenance (I&M)

This section outlines;

- Frequency of inspection of caps.
Annually
- Resurfacing of caps.
- Cap performance objectives.
- Contingency actions to prolong cap life.

2018 Summary Report;

- The Oeser Company performs monthly site inspections.
- The annual inspection log is attached. No conditions which impact the performance of the Remedial Action were observed in 2018.
- Resurfacing of the Wood Storage Area was performed in August 2018.

Sample Cap and Stormwater Drainage System Inspection Log

Date of Inspection: 11/18 7/9/13/18 Name of Inspector: J Gonschel

Time of Inspection: _____ Weather Conditions: _____

Overall Cap Inspection

Cap Damage – Location and Description Good except area of
subsidence in barkie area - noted on map

1) Asphalt Pavement and Concrete Slab Cap

Cap Damage – Location and Description 6 Loose joints on N. Haul rail / repaired
8/18

Surface Conditions _____

- Are cracks greater than ¼ inch wide visible? See notes
 - ▶ Width of cracks _____
 - ▶ Spacing of cracks _____
 - ▶ Depth of cracks _____
 - ▶ Location of cracks _____
 - ▶ Length of cracks _____
- Is settlement visible? Yes
 - ▶ Is settlement greater or less than 3 inches? NO
 - ▶ Dimension of settlement area ≈ 50' Ø
 - ▶ Depth of settlement 1"
 - ▶ Location of cracks _____

Notes: Cracks developing South of Tank Farm - area sealed
w/ 2 coats sealer

2) Gravel Cap

Cap Damage – Location and Description:

None

Surface Conditions:

Good

Notes:

Overall Stormwater Drainage System Inspection

General Location and Description:

Catch basins & tanks cleaned
no problems detected

Inspection of pipes and catch basin for debris and recommendations:

✓

Status of vegetation on Swale 1 and 2 and recommendations.

Good

Condition of sediments levels in Bioswale when drained and dry and recommendations

8/18 Sediments^① removed - deposited @ end of
cell 4 - New washed sand installed

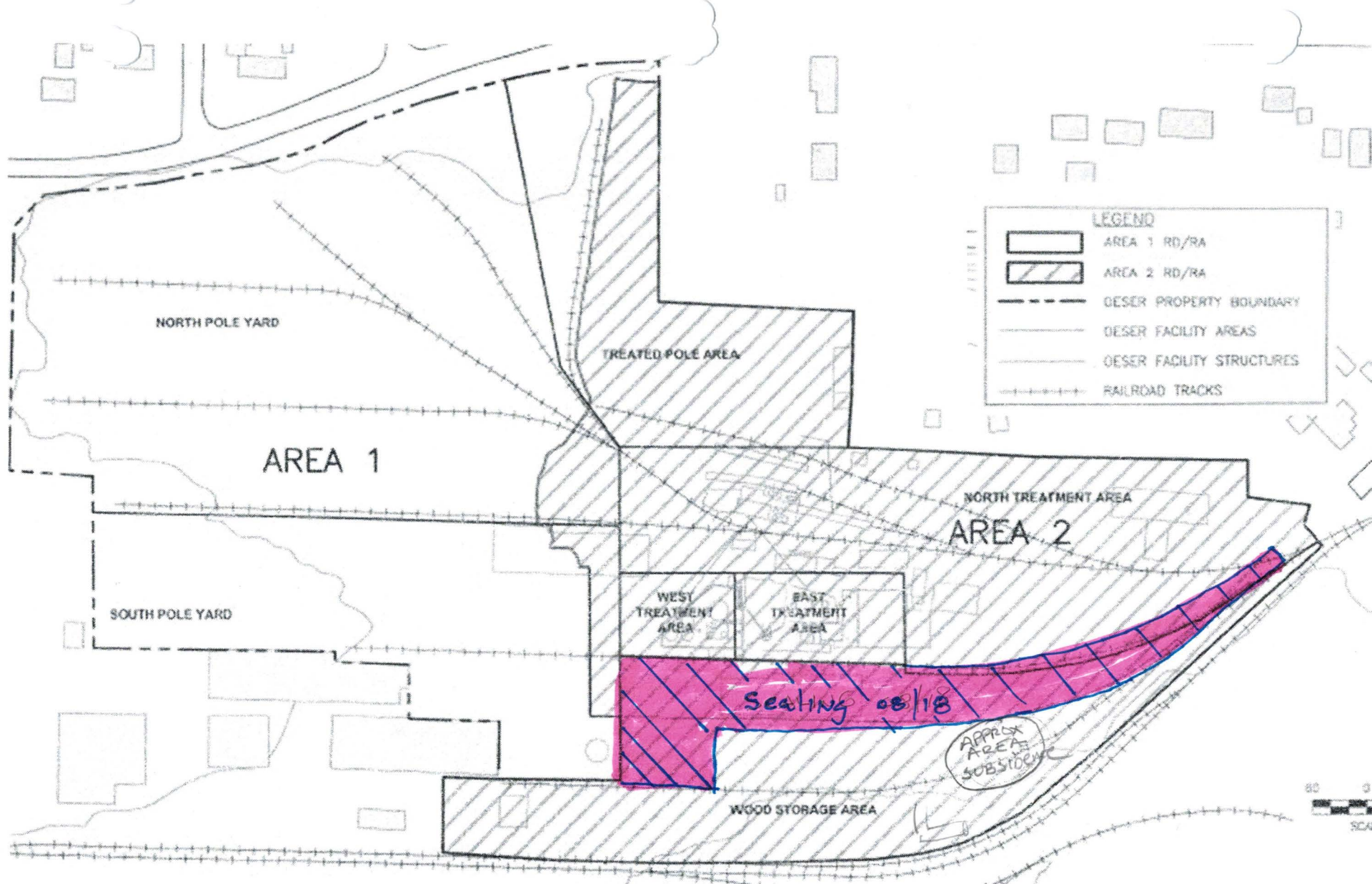
Presence of bark debris and recommendations

① Bioswale sand. ~~smk~~
Filter basket @ Pond 2 cleaned

Follow-up Inspections of Repaired Areas

Location: _____

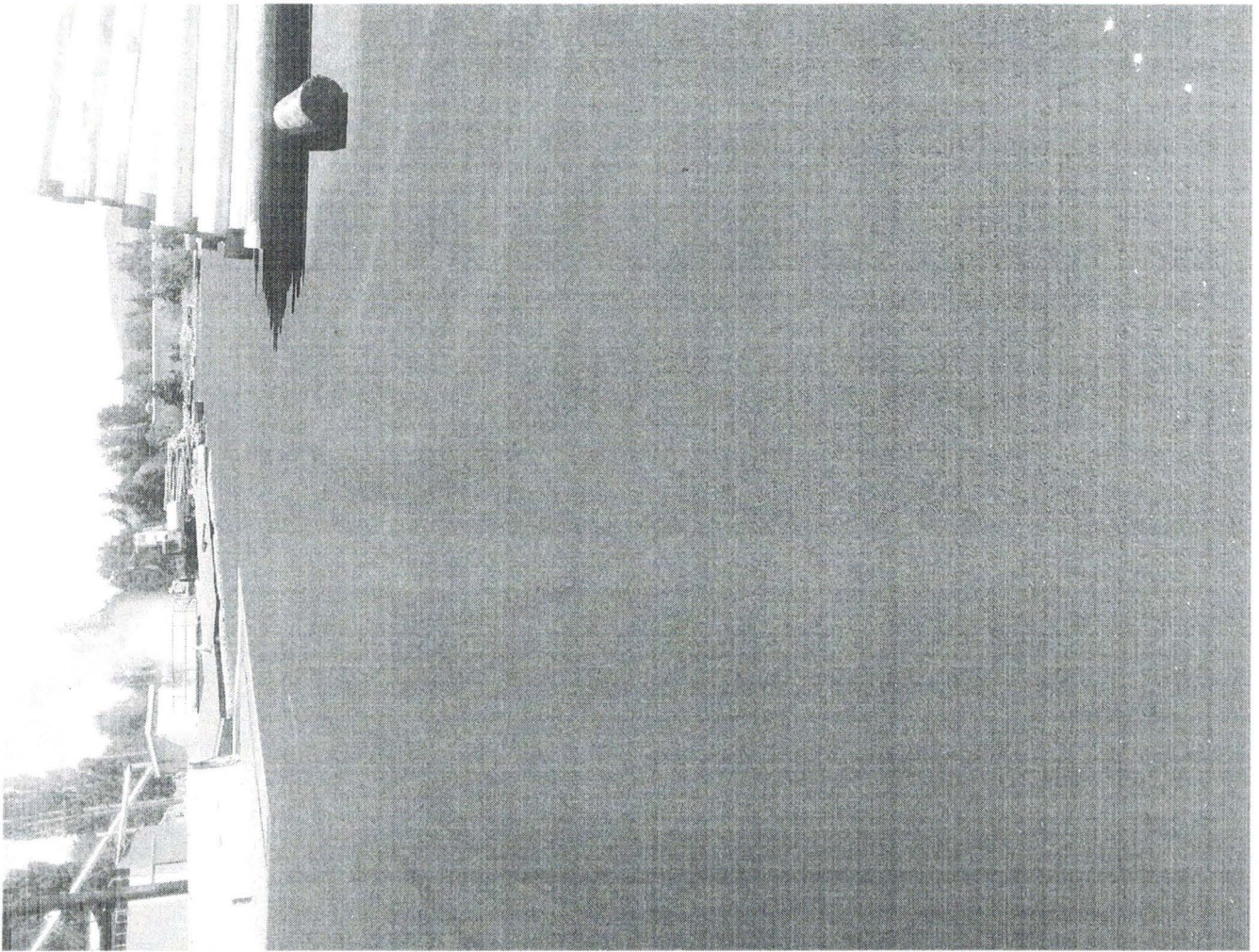
Notes: _____



USE THIS MAP TO SHOW APPROXIMATE AREA THAT ACTION WAS TAKEN

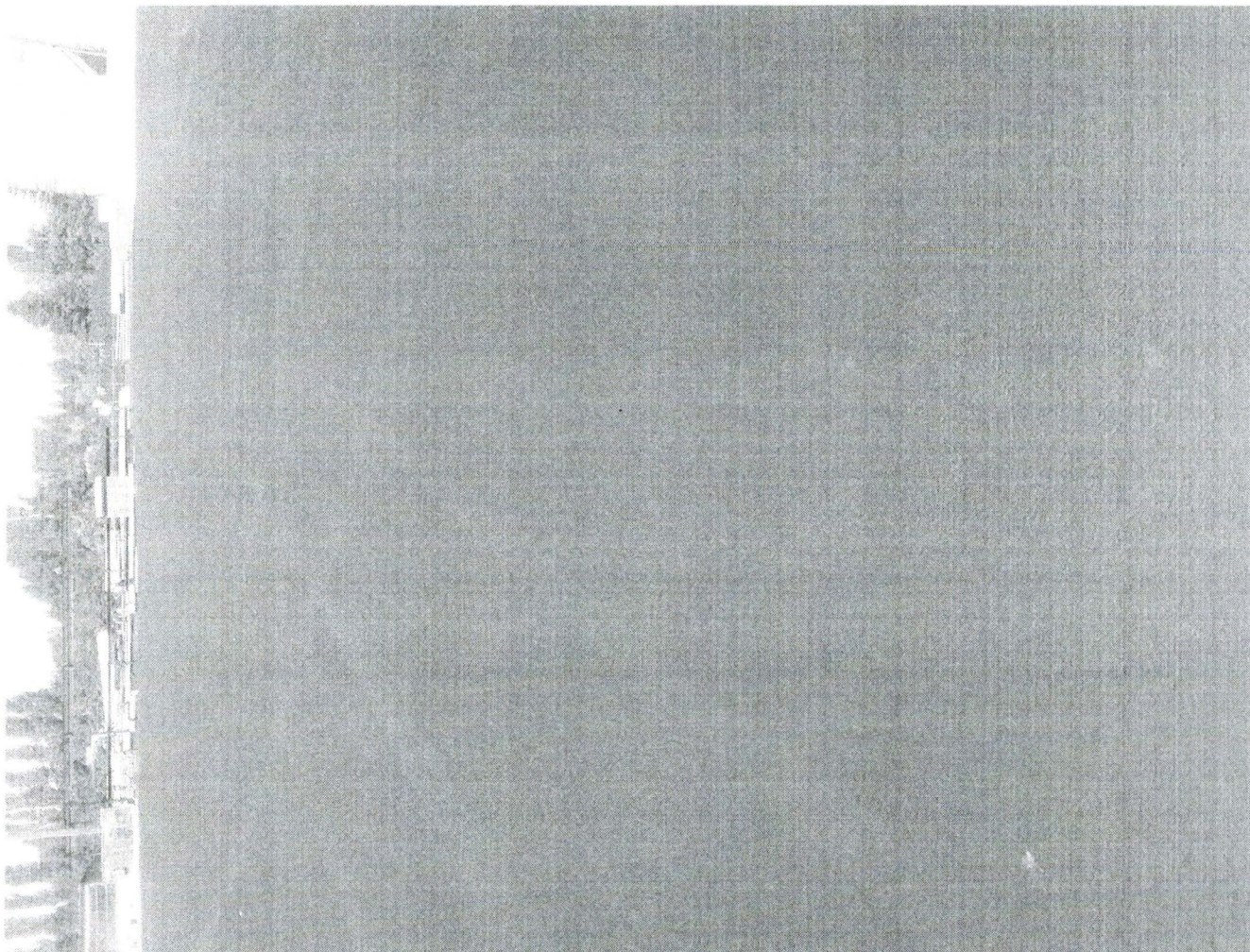
Date of Action: 8/18/2018 Action Performed By: Jon Gurschel

Attach this map to the CAP& STORMWATER SYSTEM INSPECTION LOG when completed



Wood Storage Area sealing

8/18



Wood Storage Area sealing

8/18

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 4.0

Stormwater Drainage System

Inspection & Maintenance

This section outlines;

- When to inspect drainage system.
Before wet season.
- Management of drainage system.
- Specific management objectives.

2018 Summary Report;

See Cap & Stormwater Drainage System Inspection Log
reported in Section 3.0

THE OESER COMPANY
Operations and Maintenance Plan
O&M Plan
Section 5.0
Soil Management Plan

This section outlines;

- Requirements when activities require excavation of contaminated soil below the environmental cap.
- When EPA must be notified of excavation activities.
- Soil handling procedures.

2018 Summary Report;

No soil handling, routine or those which require notification of EPA, took place in 2018.

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 6.0

Health and Safety

This section outlines;

- Health and safety requirements for contractors.
-

2018 Summary Report;

Use of contractors or subcontractors which require training for hazardous waste work did not take place in 2018.

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 7.0

Documentation and Reporting

This section outlines;

- Retention of Records.
- Inspection Logs.
- Annual Summary Report.
Include all Annual Summary Reports in this section.
- When Annual Summary Reporting can go to 5-year reporting.
- Procedures if performance standards are not met at perimeter wells.

2018 Summary Report;

- Inspection & maintenance activities are documented and maintained at the Oeser office in the Operations and Maintenance Plan, LOG BOOK.

THE OESER COMPANY

Operations and Maintenance Plan

O&M Plan

Section 8.0

Rolls and Responsibilities

This section outlines;

- Manager and field personnel.
Identify Annually
- Table 2, Summary of Inspection and Maintenance requirements.

2018 Summary Report;

The following personnel are responsible for the implementation of the O&M Plan during 2018:

8.1 Project Manager - Chris Secrist

chriss@oeserco.com

8.2 Quality Control Manager- Shannon Ashurst, Integral

sashurst@integral-corp.com

8.3 Field Team Leader.

with respect to groundwater monitoring

- Shannon Ashurst, Integral

sashurst@integral-corp.com

with respect to general O&M - Jon Gunschel

jgunschel@gmail.com

8.4 Field Inspector – Kirk Spoelstra, Oeser BMP Operator

360-733-5184